

## SECONDARY SONG OF SOME INDIAN BIRDS

BY

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### INTRODUCTION

It seems to be generally agreed among ornithologists that the repeated loud song of birds, which is such a distinctive characteristic of the arrival of spring in temperate regions, is connected with and forms a definite part of the birds' annual breeding cycle. Eliot Howard (1920) suggested, when advancing his well-known 'territory theory' that this loud, persistent song was part of the regular procedure for acquiring and maintaining a 'territory' in which to breed and from which to obtain food for the sustenance of the family. While this idea is probably basically sound, various later writers [e.g., Nicholson (1927), Selous (1933)] have suggested modifications of the territory theory as a whole, and the matter cannot yet be regarded as settled.

It has long been recognised that apart from the loud 'territorial' song, many birds have other songs (as distinct from call notes), which from the quality of the song itself, its infrequency, or the circumstances in which it is given may be regarded as of a secondary nature and of less importance than the territorial or primary song. Surprisingly few writers have referred to this secondary song in its various forms, and as yet the subject has not received the close study it deserves.

Secondary song appears to fall naturally into the following main types, though it may well be that further research will show that modification of this analysis is necessary.

1. **Autumn and winter song:** In some species a recrudescence of song is noticeable after the breeding season is over and the youngsters are fledged. This is probably distinguishable from the primary territorial song in its purpose, which is not yet fully understood, in its loudness and in its persistency, apart from its quality. Lack (1943) when writing on Robins (*Erithacus rubecula*) suggests that the autumn song probably has survival value in teaching the young cocks the specific song.

2. **Female song:** In the majority of species, so far as is at present known, the hen bird has no song comparable with the primary song of the cock. I do not know whether female song has been noticed in any Indian birds, but it has been observed in a few European and American species.

3. **Rehearsed Song of Young Birds:** A good deal has been written about the means by which young birds are able on or before reaching maturity to reproduce the typical primary song of the species. Explanations put forward at one time or another vary from pure 'instinct', to environment and example, and to plain trial

and error. Whatever be the truth of the matter—and it may well contain more than one of these ingredients—young birds may often be heard giving a form of song which differs very considerably from the typical loud specific song. In England, to give only two examples, I have on several occasions heard young Blackbirds (*Turdus merula*) and Chaffinches (*Fringilla coelebs*) give songs of this type. [Lister (1940)].

4. **Ultra-quiet Song:** I believe that Nicholson (1927) was the first ornithologist to recognise what he termed 'Subsong' and described as being 'low and inward, often becoming so faint as to be inaudible at a few yards' range'. The very quietness of this type of song must cause it to be often overlooked, and it is undoubtedly given very much more often than is generally recognised.

There has hitherto been a certain amount of confusion in the terminology applied to this ultra-quiet song and I have recently (1953) put forward a plea for the use of a uniform terminology to assist in further research in this difficult and fascinating subject. There appear to be two general types of ultra-quiet song for which I have suggested the following terms: (a) *Whispering Song*: which is merely a miniature edition of the normal loud territorial or primary song; and (b) *Subsong*: which differs intrinsically from the normal loud territorial song in being very much more of a free, random, *sotto voce* warbling in which other recognised notes are sometimes interspersed.

The functional interpretation of these very quiet songs remains to be worked out. Special songs (e.g., threat, display or courtship songs, etc.) may perhaps fall within the category of *Whispering Song* or *Subsong* in different species; until we know more about them we cannot lay down any rules. Apart from such special songs there appears to be a sort of residuum of ultra-quiet song, often given when the singer is alone, and much more evidence is needed before the function of even this can be interpreted with certainty. I have heard both *Whispering Song* and *Subsong* in most months of the year, especially among some of the *Turdidae*, and I suspect that most true song-birds indulge in one or both at one time or another.

The following records of secondary song were obtained by me during the war in 1942-45, hence their fragmentary nature.

#### **Chloropsis** (? *Chloropsis hardwickii*)

21 October, 1944. Darjeeling. A chloropsis which I believe was of this species was in some light tree jungle with low undergrowth at about 4,500'. After spending some minutes preening itself, it began to forage and at the same time to give a very varied succession of notes, starting with a low warbling song. I was unable to attempt any phonetic record.

#### ? **Whitebrowed Shortwing** (*Heteroxenicus cruralis*)

25 April, 1945. Darjeeling. I never identified these birds with absolute certainty and I therefore give a short description below in case a more experienced observer can recognise them. They had a rather thin, very high-pitched 'song' of two notes, the second being

pitched about a quarter tone lower than the first, which had considerable carrying power and was given again and again. In addition, the male frequently gave a broken succession of very soft, very high-pitched notes in no recognisable pattern—just a broken, inconsequential rambling *seei* . . . *sree* . . . *sree-ee*, each note usually rising. This seemed to me to have much more the character of a song than of call notes.

The male was entirely deep indigo blue, though I believe more blue-grey on the underparts, and in some lights the blue of the fore-crown looked lighter and brighter. A suspicion of a black mark near the eye. I could never decide whether or not there was a faint white eye-stripe. The general colour of the female was tawny olive-brown, rather greyer on the head. Most of my views were from above, among fairly dense bushes where the light was poor. These birds were quite plentiful on the tea garden where this observation was made.

#### **Pied Bushchat** (*Saxicola caprata*)

22 December, 1942. New Delhi. One was singing at intervals from a thin thorn bush. It was tame and allowed me to stand only 4-5 yds. away. The song was given softly, audible clearly 4-5 yds. away, but I doubt whether it could have been heard in detail more than 10-12 yds. away. The bird would sing for perhaps a minute, then remain silent on its perch for 2-3 minutes, then give another bout of song, and so on. The song was not unlike that of a Black Redstart (*Phoenicurus ochrurus*), interspersed with various myna-like grating notes, the basis being a *p'teraretyuarwei* . . . *trri-trri*.

#### **Brown Rock Chat** (*Cercomela fusca*)

16 October, 1942. New Delhi. One came to a large alcove terrace in the Secretariat building and perched, singing quietly, on the balustrade for some minutes, wagging its tail up and down and occasionally bending its legs and giving a little bob with its whole body. The song was very quiet, probably audible not more than 15 yds. away, and was very like the subsong of the English Robin (*Erithacus rubecula*). The general effect was a lazy, careless, carefree warbling, well leavened with sweet notes. The result was pleasing and the bird seemed to enjoy it too. The throat frequently swelled during the song.

#### **Bluefronted Redstart** (*Phoenicurus frontalis*)

25 February, 1943. Darjeeling. One bird I was watching gave a low, warbling song, much less wheezy than the usual song of a Black Redstart (*Phoenicurus ochrurus*), and quiet—almost inaudible 10 yds. away.

#### **Magpie Robin** (*Copsychus saularis*)

25 July, 1943. Jessore, Bengal. One sang very softly for 2-3 minutes almost without a pause from an inner branch of a tree. This song was a good deal more rambling than the normal loud song of this species, and it reminded me strongly of the subsong of

an English Robin (*Erithacus rubecula*), though it was not nearly so quiet as some subsongs I have heard. This song was audible clearly 10 ft. away, though it would have been difficult to distinguish 20 ft. away. The bird moved very little during the performance.

14 December, 1943. Jessore. On two or three occasions during the preceding few days I heard Magpie Robins giving a low, sweet subsong, which seemed to me rather more varied than the usual primary song and again reminded me of the subsong of the English Robin.

12 August, 1944. Jessore. One was singing quietly from a bushy tree. The song went rambling quietly on for minutes on end with hardly a break. A few mornings before there had been gentle rain for several hours, and the same bird then sang continuously and softly for quite a long period. The song was very quiet and did not obtrude itself on one's attention like the louder territorial song of the species, and it went rambling on and on. The whole performance was very similar indeed to the behaviour of an English Robin under similar conditions. This song was, I think, not quite soft enough to be called a true subsong, if loudness or quietness are the only criterion; it was audible quite easily 20 yds. away, but it was much more fluid, less definitely phrased than the normal loud song, in fact the phraseology, timbre, and everything about it might have belonged to an English bird.

30 August, 1944. Jessore. At 07.00 hours it was drizzling and a Magpie Robin was singing very quietly in the lower branches of a tree, and opposite, on the other side of the road, another Robin was singing just as softly. They must have been able to hear each other's song without difficulty, but there seemed to be no question of singing against one another as there is with the loud territorial song. The songs of these two birds was again very similar to the subdued subsong of the English Robin in quality, timbre and loudness.

On another morning a few days earlier there was a continuous drizzle and one of the birds that was usually to be seen near my bungalow was singing very quietly for some considerable time.

#### **Greywinged Blackbird** (*Turdus boulboul*)

24 February, 1943. Darjeeling. One sang softly for a few minutes in the morning and the song was very similar to that of the English Blackbird (*Turdus merula*).

20 May, 1943. Darjeeling. Immediately after giving the usual loud song of four clear notes in descending scale, a bird gave a low warbling subsong, lasting only a few seconds with a slight pause in the middle. Again it was not unlike the subsong of an English Blackbird, but less rounded and 'finished', and rather flatter and more insipid.

#### **Blueheaded Rock Thrush** (*Monticola cinclorhyncha*)

29 May, 1945. Darjeeling. One was singing from the branch of a Siris tree. Between bursts of the normal loud song the bird also gave several other much softer notes, audible where I was standing some 50 yds. away and 100 ft. above. As far as I could tell, these notes were exactly similar to the ordinary loud notes,

but they were much softer and were not flung out with such abandon for all the world to hear. At the same time, while clearly differing from the loud primary song, these notes were not soft enough to be classed as subsong, though they certainly seemed to be of a secondary nature.

### Himalayan Whistling Thrush (*Myiophoneus coeruleus*)

21 October, 1944. Darjeeling. One gave a long, low, rambling subsong from near the top of a large *Cryptomeria* tree, for at least 10-15 minutes. This song was very quiet, though distinctly audible 15 yds. away, and consisted of a rambling series of whistling notes, like a quiet but much more varied edition of the ordinary song, sometimes given as independent individual notes, sometimes as phrases. Every so often this subsong was punctuated by a most extraordinary series of spluttering noises, something like the sound produced by pressing one's lips to the back of one's hand and blowing hard—what is known to schoolboys as a 'raspberry', in fact, but much more sustained and long drawn out.

24 October, 1944. Darjeeling. The usual bird was singing from near the top of the same *Cryptomeria* tree. This time the subsong, which alone was given, seemed more unlike the true song than before and much more like the rambling, warbling subsong of an English Robin (*Erithacus rubecula*). Just now and again soft whistling phrases of the usual loud song were given, but these were infrequent. The low spluttering notes were also given occasionally, but this time they were not so much in evidence.

Earlier the same afternoon I had heard another bird singing among some bamboos in a small ravine. This song was soft, though louder than the song mentioned above, and consisted of a quiet edition of the usual whistling song, interspersed now and then with the low guttural spluttering notes. Occasionally the whistling would tail off into a kind of shapeless warbling.

### [?] Little Pied Flycatcher (*Muscicapula melanoleuca*)

26 October, 1944. Darjeeling. A 'family' of 8-10 was among a very large mixed hunting party of small birds foraging in a few trees and dense bushes in a large ravine at about 4,500 ft. I watched one of these birds at close quarters. It made only few sorties outside the canopy of the tree and seemed to get most of its food in fluttering flights from one branch to another. Now and again it gave some very soft, rather warbling notes, interspersed fairly frequently with equally quiet grating notes. This 'song' was given so quietly that I could only just hear it 10 yds. away, without being able to distinguish its exact pattern and phraseology.

### Blyth's Reed-Warbler (*Acrocephalus dumetorum*)

29 September, 1942. New Delhi. One gave at intervals a low-pitched, but loud *tchuk* . . . *tchuk* from the middle of some thick bushes. Later it gave a subdued warbling song, very like the subsong of an English Robin (*Erithacus rubecula*), with the addition of occasional harsher notes. It was similar in all ways, the quality, composition, timbre, and spacing, and in the delivery—a sort of musing

soliloquy. This continued for several minutes until another bird gave an alarm.

10 October, 1942. New Delhi. One sang for a considerable time from an inside spray of a thick bush. While it was singing it remained stationary, but later it ceased and moved about the bush a little so that I had several good views; then it settled on another perch and sang continuously for a considerable time. The song varied in loudness; for the most part it was fairly quiet, audible for probably 20 yds., but sometimes it swelled into a crescendo lasting some seconds, which could no doubt have been heard at double that distance, and at other times it dwindled to the merest whisper, scarcely audible 3 yds. away. The fact that there was no apparent division between these degrees of loudness, and that the song swelled from a whisper to a respectable volume without any appreciable pause or break, is some evidence of the connection between the ordinary loud song (and through that the primary or territorial song) and subsong. There were slight pauses, of course, but I could not in any instance connect them with the transition from soft to loud or vice versa.

The notes forming the song were extremely varied, sweet, pure notes being included in about equal proportion with comparatively discordant notes. Some of the phrases were warbled, but the majority were given separately in a very similar way to the songs of Sedge-Warblers (*Acrocephalus schoenoboenus*) and Reed-Warblers (*A. scirpaceus*) in Europe. The phrases were strung together very rapidly as a rule, so that the general effect was a warbling, and it was impossible to make a fully accurate record of the notes given.

The following, compiled from notes I managed to make at intervals during the performance, gives a fairly good idea of the general nature of the song, but these notes do not represent any complete phrase and were not all given consecutively.

*Chupchup-t—heee—heee—see—wk'wk—se-se-sa-seu—wk'wk—tsitsiweeeea—tck-tck—wripwrip—picpicpic—seeea—brk'brk'brk—seeea.*

### Booted Warbler (*Hippolais caligata*)

20 October, 1942. New Delhi. One was singing in a babool tree growing among thorn bushes. Almost all the time it was singing it was moving about the tree hunting for food in a somewhat half-hearted way, as though its song were its main interest and the food only a secondary one. It moved by short hops, both forwards and often sideways along the twigs, never more than a few inches at a time, pausing now and then to devote itself to its singing for a few seconds before moving on. Now and again it would pause for a second or two in its song to stretch up to a leaf or crevice in the bark, or to hang nearly head downwards.

The song was a quiet, varied warbling, not particularly striking in any way by reason of any special characteristic, but generally pleasing to the ear, and it included only very few discordant notes. It was inclined to be rather hurried—the sequence of notes was in any case much too rapid for me to be able to make an exact record of them. At times it rose into a fairly full, loud warbling, though even at its loudest I doubt if it would have been audible more than about 30 yds. away. Usually it was much quieter and once it sank so low

that I could only just hear it 4 yds. away. There was no real pause or other line of demarcation between the loud and the quiet song, and I could detect no difference in quality, timbre or character between them. Many of the notes used were short, almost staccato ones, but they fitted into the song as a whole to produce a warbling result.

Once when I moved round the tree to get a better view of it, the bird ceased singing and gave two different notes of protest. (a) *tjä* (German *ä*) repeated 8-9 times fairly rapidly; and (b) a very sparrow-like *chrrr*. But it resumed its singing within about two minutes of the interruption.

#### **Maroon Oriole** (*Oriolus traillii*)

24 May, 1943. Darjeeling. A pair was among Siris, etc., trees growing among tea bushes on the hillside. On my arrival one bird (presumably the male) was giving the usual *pelulu* calls with many variations which I did not attempt to record. After a few minutes of this, however, when I was standing only some 15 yds. away, this bird suddenly broke out into a rambling warbling, quite different and far more complicated and polished than the usual calls, but often including these, sometimes in a slightly distorted form. Most of this warbling was continuous with few pauses and was given a good deal more quietly than the usual notes, but hardly quietly enough to be classed as a real subsong. It varied a good deal in loudness, however, from a stage whisper audible perhaps 25 yds. away, to a fairly loud song only slightly softer than the usual calls which have considerable carrying power. It usually became louder as it led up to one of the usual notes and softer again immediately afterwards.

While the bird was giving this song it hopped unconcernedly about the tree, pausing now and again to reach up among the large seed pods after food. The singing lasted for perhaps three minutes and then the bird was driven out of the tree by an Ashy Swallow-Shrike (*Artamus fuscus*); after that it was conspicuously silent, only occasionally giving one of the usual loud calls.

#### **Tree Pipit** (*Anthus hodgsoni*)

27 March, 1945. Myitkyina, N. Burma. I had several excellent views of birds which I think must have belonged to the Yunnan race (*Anthus h. yunnanensis*), while they walked about on the ground within a yard or two of where I was standing. I heard one bird giving a very quiet song as it wandered about foraging. This song was a sort of whispering soliloquy based on *psiri*, with divers variations and modulations, and the result was quite pleasant. The colouring seemed to me to be rather more intense than the birds I saw in Bengal, with much less green and more brown above, rather more rufous and less pale buff below, and the whitish eyestripe was very marked.

**Note:** In the above records I have used the words 'quiet', 'soft' and 'low' somewhat loosely as meaning the opposite to loud. Such looseness of speech is obviously undesirable and might lead to confusion in an extensive study of song, but I have not altered it in these records as I wished to deviate as little as possible from the original wording of my notes.

## SUMMARY

In addition to the loud, persistent, primary or territorial song, many birds have songs of secondary importance. This may take the form of autumn or winter song; song of hen birds; rehearsing song of young birds; very quiet, inward whispering song similar to the primary song, or subsong differing from the primary song; or rather louder songs given only occasionally. Instances are given of secondary songs of fourteen species of birds occurring in India and Burma. The whole question of secondary song is one which merits much greater attention than has hitherto been given to it and it is likely that a wide study of it might disclose interesting evidence on other aspects of bird life, particularly the evolution of species and sub-species and their specific primary songs.

## BIBLIOGRAPHY

- Howard, H. Eliot, (1920): 'Territory in Bird Life'. London.  
 Lack, D. (1943): 'The Life of the Robin', London.  
 Lister, M. D., (1940): 'The Development of Song in Young Chaffinches'. *Brit. Birds*, xxxiv (7).  
 — — — (1953): Secondary Song: A tentative Classification. *British Birds*, xlvii (4): 139-143.  
 Nicholson, E. M., (1927): 'How Birds Live'. London.  
 Selous, E., (1933): 'Evolution of Habit in Birds'. London.

A CORRECTION: 'Some Jungle Bird Associations' [*J.B.N.H.S.*, 50 (3)—April, 1952—p. 588] delete asterisk indicating occurrence against Redwinged Bush Lark (*Mirafra erythroptera*) in column III (Darjeeling).—M.D.L.